

REMARKS

Claims 1-31 remain pending in the present application. The Examiner's withdrawal of the objection to claim 1 in view of applicant's amendment, and the rejection of claims 1-3 and 8-31 under 35 U.S.C. 112, second paragraph, as being indefinite based on use of the term, "elevated" is hereby acknowledged with appreciation.

I. The Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 4-7 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite on the basis that the term, "at least about" is a relative term that renders these claims indefinite. This rejection is traversed and reconsideration is requested for the reasons which follow.

MPEP §2173.02 states that,

When the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness.

Thus, absolute certainty as to the scope of the claim language is not required by 35 U.S.C. §112. Instead, only reasonable degree of particularity and distinctness is required.

The Examiner appears to disregard the teachings in the specification relevant to the interpretation of the term, "at least about" on the basis that, "A preferred example is not a clear definition." However, a "clear definition" of the term "at least about" in the specification is not necessary to meet the requirements of 35 U.S.C. §112 since the patentable subject matter need only be defined with a reasonable degree of particularity and not absolute particularity. See MPEP §2173.02. Moreover, the Examiner has cited no basis for the proposition that to meet the requirements of 35 U.S.C. §112, a clear definition of that term must be found in the specification.

MPEP §2173.05(b) provides further guidance applicable here:

2173.05(b) Relative Terminology [R-5]

The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph. *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification.

There are two important points in this section. First, the use of relative terminology, such as “at least about”, does not automatically render the claim indefinite. Thus, in addition to identifying that the term is a relative term the Examiner must justify why, in the context of the present application, the term, “at least about” renders the claim indefinite. The only basis for this rejection provided by the Examiner is the allegation that, “The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree...” Final Rejection, page 3, lines 2-3. As discussed below, the specification does, in fact, provide a standard for ascertaining the meaning of the terminology “at least about” and thus the Examiner’s reasoning in support of the rejection is not correct.

Second, MPEP §2173.05(b) makes it clear that whether “at least about” is acceptable under 35 U.S.C. §112 depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. In this regard, the Examiner took the position that, “...the specification does not provide a standard for ascertaining the requisite degree.” The applicant disagrees with this conclusion.

For example, the specification at page 8, line 4 indicates that the reaction mixture generally will heat to “at least about 40°C.” Then, at page 8, line 12, the specification indicates that a preferred temperature range is “about 50 to 110 °C.” From this, a skilled person can readily infer that “at least about 40°C” must be different from “about 50°C” or the specification would not have mentioned “about 50°C” as a preferred embodiment of “at least about 40°C”. Thus, a skilled person could draw the conclusion that “about” means $\pm 5^{\circ}\text{C}$ since otherwise “about 40°C” as used in the specification, would overlap with “about 50°C”, as used in the specification. Accordingly, there is, in fact, guidance

in the specification for interpretation of the term, “at least about” contrary to the Examiner’s assertion and thus this rejection should be withdrawn.

The Examiner disregards the guidance in the specification on the basis that, “A preferred example is not a clear definition.” See Final Rejection, page 3, line 10. However, as discussed above, 35 U.S.C. §112 does not require that the specification provide a clear definition of a term, but rather only that the term can be interpreted with a reasonable degree of particularity. This standard is met by the present specification and thus the rejection should be withdrawn.

The Examiner also asserts that *Amgen, Inc. v. Chugai*, 927 F.2d 1200, 1218, 18 USPQ2d 1016 (Fed. Cir. 1991) supports her position that the term, “at least about” is indefinite. Although the Federal Circuit held the term, “at least about” to be indefinite under 35 U.S.C. §112 in *Amgen, Inc. v. Chugai*, this case was an exceptional case due to the specific circumstances which led to the court’s decision. It is important to note that, for example, in *Hybritech, Inc. v. Abbott Laboratories*, 849 F.2d 1446, 7 USPQ2d 1191, 11999 (Fed. Cir. 1988), the Federal Circuit considered the term, “at least about” in an infringement appeal and did not find it to be indefinite. In addition, in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 842 F.2d 1275, 6 USPQ2d 1277 (Fed. Cir. 1988), the term, “exceeding about” was at issue and the Federal Circuit also did not find it to be indefinite.

In fact, in *Amgen, Inc. v. Chugai*, the Federal Circuit referenced its earlier decision in *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, indicating that,

In arriving at this conclusion, we caution that our holding that the term “about” renders indefinite claims 4 and 6 should not be understood as ruling out any and all uses of this term in patent claims. It may be acceptable in appropriate fact situations, e.g., *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1557, 220 U.S.P.Q. (BNA) 303, 316 (Fed. Cir. 1983) (“use of ‘stretching . . . at a rate exceeding about 10% per second’ in the claims is not indefinite”), even though it is not here.

927 F.2d at 1218. Thus, in *Amgen, Inc. v. Chugai*, the Federal Circuit stated that its ruling should not rule out any and all uses of the term, “about” in patent claims and that the use of this term may be acceptable in appropriate circumstances. The present case is an example of one of the appropriate circumstances in which use of the terminology “at

least about” is acceptable. As the Examiner herself stated, “...each application for patent is examined on its own merits.” See Final Rejection, page 3, last sentence.

The facts of *Amgen, Inc. v. Chugai* were significantly different from the present facts and thus the ruling in *Amgen, Inc. v. Chugai* does not apply in the present case since the special factual circumstances led to the Court’s decision. In *Amgen, Inc. v. Chugai*, the Federal Circuit held that the recitation “at least about 160,000” was indefinite stating that,

The court found the "addition of the word 'about' seems to constitute an effort to recapture . . . a mean activity somewhere between 120,000, which the patent examiner found was anticipated by the prior art, and [the] 160,000 IU/AU" claims which were previously allowed. Because "the term 'about' 160,000 gives no hint as to which mean value between the Miyake et al. value of 128,620 and the mean specific activity level of 160,000 constitutes infringement," the court held the "at least about" claims to be invalid for indefiniteness. 13 U.S.P.Q.2d at 1787-88.

927 F.2d at 1218. Thus, in *Amgen, Inc. v. Chugai*, the word, “about” was added as an amendment to the original claim which required, “at least 160,000.” This is not the case here since the claim language “at least about” was not added to claims 4-7 by amendment, and thus for this important reason upon which the court relied for its decision, the facts of the present case are clearly distinguishable from the facts of *Amgen, Inc. v. Chugai*.

Second, in *Amgen, Inc. v. Chugai*, the word, “about” was added in an effort to recapture subject matter for which coverage was forfeited by deletion of a broader claim requiring a mean activity starting at the lower limit of 120,000 because of the cited prior art reference to Miyake et al. which disclosed a value of 128,620. In the present case, there has been no effort to recapture subject matter using the limitation “at least about” and thus the facts of the present case are clearly distinguishable from the facts of *Amgen, Inc. v. Chugai* for this additional important reason which was also relied on by the court in making its decision.

The Federal Circuit in *Amgen, Inc. v. Chugai* went on to say that,

This holding was further supported by the fact that nothing in the specification, prosecution history, or prior art provides any indication as to what range of specific activity is covered by the term "about," and by the

fact that no expert testified as to a definite meaning for the term in the context of the prior art.

927 F.2d at 1218. In the present case, as demonstrated above, the specification provides an indication as to what range of temperature is covered by the term, “at least about.” Thus, the facts of the present case are distinguishable from the facts of *Amgen, Inc. v. Chugai* for this third, significant reason which was also relied on by the court in support of its decision.

Finally, in *Amgen, Inc. v. Chugai*, the Federal Circuit concluded that,

When the meaning of claims is in doubt, especially when, as is the case here, there is close prior art, they are properly declared invalid.

927 F.2d at 1218. Thus, another factor relied on by the Federal Circuit in *Amgen, Inc. v. Chugai* was the fact that there was close prior art, i.e. prior art that met every limitation of the claim except the “at least about” limitation and which contained a disclosure of a value closer to the end point of the range (e.g. 128,620) than other values for the end point of that range which were disclosed in the specification (e.g. 120,000). In the present case, the facts are clearly different since, as the Examiner admits, the closest prior art relied on by the Examiner, Hanna, et al., completely lacks a teaching of a process for producing microcrystalline cellulose using an active oxygen compound. See Final Rejection, page 5, lines 7-8. This missing limitation is also a different limitation than the limitation at issue which includes the “at least about” language. Thus, the present situation differs from the facts of *Amgen, Inc. v. Chugai* in two additional important respects:

(1) the prior art in the present case is not close, as was the case in *Amgen, Inc. v. Chugai*, since a limitation of the claim which does not include the “at least about” language is completely missing from the closest prior art reference relied on by the Examiner, namely, Hanna, et al., and

(2) the “at least about” limitation is not relied on in the present case to distinguish from the closest prior art reference to Hanna et al., as was the situation relative to the Miyake et al. reference in *Amgen, Inc. v. Chugai*.

Accordingly, to sum up, the rejection should be withdrawn for at least the following reasons:

(1) the specification provides guidance as to the meaning of the term, “at least about”,

(2) *Amgen, Inc. v. Chugai* does not hold that the term, “at least about” is indefinite in all cases but rather only in one set of exceptional circumstances which do not apply here,

(3) at least two other decisions of the Federal Circuit interpreting “at least about” or “exceeding about” did not find these terms to be indefinite,

(4) the facts of the present situation differ in at least five significant respects relied on by the court in its decision in *Amgen, Inc. v. Chugai*, as discussed above, and

(5) 68,946 U.S. patents have issued since 1976 employing the phrase “at least about” in one or more claims thereby giving a further indication that in at least 68,946 circumstances this terminology has been found to be definite by the U.S. Patent and Trademark Office. The Examiner has completely ignored this evidence on the basis that “patents are property and not available as precedent.” However, the applicant has not cited these 68,946 patents as precedent. Rather, the applicant has cited these patents as evidence that 68,946 times, when faced with the terminology “at least about” the U.S. Patent and Trademark Office has found it to be definite. This provides overwhelming evidence that this term should be considered definite absent extremely exceptional circumstances to the contrary, such as the exceptional circumstances that were present in *Amgen, Inc. v. Chugai* and which are not present in this case.

Accordingly, the Examiner has not met her burden of establishing a *prima facie* case of indefiniteness and the rejection should be withdrawn. Favorable consideration and withdrawal of the rejection under 35 U.S.C. §112 is requested.

II. The Rejections Under 35 U.S.C. §103(a)

Claims 1-7, 20, 22-24, 26 and 28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent no. 6,228,232 B1 (Hanna et al.), in view of WO 01/02441 A1 (Schaible et al.) and U.S. Patent no. 6,392,034 B1 (Trusovs et al.). This rejection is respectfully traversed and reconsideration is requested for the reasons which follow.

The present invention, as claimed in claim 1, relates to a process for the production of microcrystalline cellulose. In the process, a reaction mixture comprising a cellulose material, an active oxygen compound and water, is subjected to a high shear treatment at elevated temperature for a time effective to depolymerize the cellulose material. The present invention provides an efficient, one-step process for the production of microcrystalline cellulose.

The primary reference to Hanna et al. discloses a process for the production of microcrystalline cellulose by subjecting a reaction mixture of cellulose material, water and acid to reactive extrusion at a temperature of the extruder barrel of from 80-200°C. The Examiner admits that Hanna et al. does not disclose a process for producing microcrystalline cellulose using an active oxygen compound. Final Rejection, page 5, lines 7-8. When wood cellulose is employed as the starting material in Hanna et al. a level-off degree of polymerization of the obtained microcrystalline cellulose may be 220 indicating that some depolymerization has occurred.

Schaible et al. teaches a process for the production of microcrystalline cellulose by hydrolyzing pulp with active oxygen. The method simultaneously hydrolyzes and bleaches the starting material to obtain a microcrystalline cellulose product. (See page 2, lines 20-24 of Schaible et al.).

Trusovs et al. teaches a method of producing microcrystalline cellulose by first treating cellulose with an alkaline solution at a temperature between 20 and 100°C to provide an alkaline suspension and then adding hydrogen peroxide or another type of peroxide solution to reduce the viscosity of the alkaline suspension and thereby produce microcrystalline cellulose. Thus, Trusovs et al. teaches away from using the method of Hanna et al. involving acid since Trusovs et al. teaches that the cellulose should be provided in the form of an alkaline suspension for addition of peroxide when producing microcrystalline cellulose.

The Examiner takes the position that it would have been obvious to use the reactive extrusion process of Hanna et al. with hydrogen peroxide to produce microcrystalline cellulose (see page 5, lines 4-6 of the Office Action) in view of Schaible et al. or Trusovs et al. The applicant disagrees with this conclusion for several reasons. First, according to the MPEP:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) MPEP §2143.01.

The Examiner relies on two alleged motivations for the skilled person to combine the teachings of the cited references for the purpose of arriving at the present invention:

(1) the extruder method of Hanna et al. has a shorter reaction time than conventional methods, and

(2) the use of hydrogen peroxide for hydrolysis also bleaches the material at the same time and thus there would be no need for a separate bleaching step.

With respect to item (1), though it is not clear from the Final Rejection, apparently the Examiner is asserting that it would be obvious to modify the method of Schaible et al. to employ the extruder method of Hanna et al. for the purpose of achieving a shorter reaction time. This is because Hanna et al. already employs the extruder method and thus cannot be modified to employ the extruder method.

However, Hanna et al. does not disclose the reaction time required for the extruder method. Rather, Hanna et al. only teaches that the extruder method has a shorter reaction time than conventional batch processes for acid hydrolysis of cellulose. See e.g. col. 1, lines 33-40 and col. 2, lines 5-20 of Hanna et al. Thus, from reading Hanna et al. the skilled person only learns that relative to a batch acid hydrolysis process, the acid hydrolysis extruder method of Hanna et al. has a shorter reaction time.

Neither Schaible et al. nor Trusovs et al. relate to the conventional batch processes for acid hydrolysis of cellulose referred to in cols. 1-2 of Hanna et al. Thus, the skilled person cannot actually determine from the cited references whether use of the extruder method Hanna et al. would produce a shorter reaction time than is needed to complete the reaction in either Schaible et al. or Trusovs et al. According to MPEP §2143.01:

In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification. *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).” MPEP §2143.01.

Thus, the Examiner's rejection does not meet this minimum standard since the skilled person having the references before him, cannot determine whether use of the extruder method of Hanna et al. in the process of Schaible et al. or Trusovs et al. will result in a reduced reaction time. Since the skilled person does not have sufficient information to determine the effect of reactive extrusion on the reaction time of the Schaible et al. process from the cited references, obtaining a reduction in reaction time cannot be a motivation for a skilled person to modify Schaible et al. to employ the extruder method, as the examiner suggests.

The Examiner admits that the cited references actually teach that, "acid hydrolysis at high temperature and high shear forces is faster than acid hydrolysis without high temperature and high shear forces." See Final Rejection, page 9, lines 1-2. The Examiner then concludes that, "The skilled artisan could easily apply this logic to the reaction with active oxygen." This statement by the Examiner is totally unsupported by evidence or rationale and thus should be disregarded for this reason alone.

Further, the facts actually support the applicant's position and not the Examiner's position since the Examiner notes that a skilled person would conclude that acid hydrolysis at high temperature and high shear would be faster than acid hydrolysis without high temperature and high shear forces. The Schaible et al. reaction is performed at high temperature (e.g. boiling temperatures of 100°C). See page 7, lines 20-22 and the Examples of Schaible et al. Thus, the method of Schaible et al. differs from the conventional processes to which Hanna et al. compares its reaction time not only because they are not conventional batch acid hydrolysis reactions, as discussed above, but also because Schaible et al. already operates at high temperature. This is a second, important reason that a skilled person cannot conclude that there would be a reduction in the reaction time of Schaible et al., by use of the extruder method of Hanna et al. since Schaible et al. already employs high temperatures in its reactions and thus use of the extruder method of Hanna et al. would not necessarily raise the temperatures already employed by Schaible et al., as the Examiner assumes. In fact, Hanna et al. specifies that the temperature during the acid hydrolysis step should be 80-200°C on the extruder barrel (see col. 3, lines 60-63 of Hanna et al.), which encompasses the high temperature of 100°C used in Schaible et al. Thus, it is quite possible that use of the extruder method of

Hanna et al. could actually result in a reduction in reaction temperature (e.g. from 100°C of Schaible et al. to the lower limit of 80°C of Hanna et al.) rather than an increase in reaction temperature as the Examiner suggests.

Finally, there is no teaching whatsoever in Hanna et al. that increasing the pressure will decrease reaction time. All of the reactions in Hanna et al. are run at the same pressure and Hanna et al. gives no indication whatsoever that increased pressure can be used to reduce reaction time. It is quite possible that use of high temperatures is solely responsible for the reduction in reaction time described in Hanna et al. and not use of increased pressure. The point is that the skilled person would have insufficient basis upon reading Hanna et al. to conclude that increased pressure would provide a reduction in the reaction time of the reactions of either Schaible et al. or Trusovs et al.

Turning now to the second motivation relied on by the Examiner in support of the combination of references, namely,

(2) the use of hydrogen peroxide for hydrolysis also bleaches the material at the same time and thus there would be no need for a separate bleaching step.

This motivation is also insufficient for a skilled person to combine the references in the manner suggested by the examiner since the cited references do not provide sufficient information for the skilled person to conclude that “there would be no need for a separate bleaching step.” In fact, the cited references would indicate to a skilled person that there would nearly always be a need for a separate bleaching step, contrary to the Examiner’s position.

First, the applicant pointed out that some of the starting materials contemplated for use by Hanna et al. (e.g. pure cellulose) do not require bleaching. Thus, if pure cellulose were the starting material, the Examiner’s alleged motivation (2) for combining the references would not apply since there is already no need for a separate bleaching step and thus the skilled person, in this circumstance, would have no reason to use hydrogen peroxide for bleaching as the Examiner suggests. The Examiner apparently concedes this point at page 9, lines 4-7 of the Final Rejection. Instead, the Examiner states that, “...in many cases, a bleaching step is part of the process taught by Hanna et al.” Final Rejection, page 9, lines 7-8. Thus, the Examiner admits that sometimes there might not be a need to bleach the starting material used in Hanna et al.

The Examiner has also taken the position that the subsequent bleaching step of Hanna et al. can be eliminated by combining the extruder method of Hanna et al. with the method of Schaible et al. However, the Examiner cites no basis in the cited references for this conclusion. A close review of the teachings of Schaible et al., however, leads to the opposite conclusion, namely, that in nearly all cases, a subsequent bleaching step will still be required even if an active oxygen compound is employed.

More particularly, Schaible et al. indicates the color lightness of two commercially available microcrystalline cellulose products, namely, Emcocel® 50M and Emcocel® 90M in Table 1 of Example 1 on page 8. These commercially available products had lightness values (L^*) of 98.3 and 97.87, respectively. Examples 1-7, 9-10 and 12-15 and 17 of Schaible et al. all employed an active oxygen compound, yet, of all of these examples, only Example 1 of Schaible et al. achieved a lightness value equal to or greater than the commercial microcrystalline cellulose products. All of the remaining examples 2-7, 9-10 and 12-15 and 17 of Schaible et al. resulted in lightness values (L^*) inferior to the lightness values of the commercially available microcrystalline cellulose products. From this, a skilled person would conclude that in nearly all circumstances, an additional bleaching step would be required after the process of Schaible et al. in order to provide products having lightness values at least as high as those of the existing commercially available microcrystalline cellulose products to which Schaible et al. compares its products. As a result, a skilled person would not have a reasonable expectation of successfully eliminating the subsequent bleaching step as the Examiner suggests.

Thus, the second motivation relied on by the Examiner in support of the obviousness rejection also fails for lack of evidentiary support in the record.

In addition, the Examiner draws several conclusions which rely on the interchangeability of the acid hydrolysis of Hanna et al. with the process of Schaible et al. However, Hanna et al. employs acid hydrolysis to de-polymerize wood pulp by cleaving the cellulose chains in the amorphous regions but leaving crystallites hydrogen bonded to each other. This is not the chemical equivalent of treatment with an active oxygen compound as in Schaible et al. More specifically, the present specification teaches that treatment with an active oxygen compound provides some different effects on the

cellulose that appear to be independent of acid hydrolysis. See e.g. page 9, lines 10-16 of the application. Also, Trusovs et al., suggests that treatment with peroxide causes some oxidation of the cellulose to occur. See column 2, lines 49-53 of Trusovs et al. Oxidation of cellulose is not the same as the hydrolysis of cellulose that is being performed in Hanna et al.

A skilled person would therefore not substitute an active oxygen treatment for an acid hydrolysis step of Hanna et al. for the reasons suggested by the Examiner since the active oxygen treatment has the additional effect of oxidizing the cellulose material. There is no mention of oxidation occurring in the acid hydrolysis step of Hanna et al. Thus, oxidation due to active oxygen treatment would result in a significant chemical change in the resultant cellulose material that is not contemplated by Hanna et al. As a result, the skilled person would expect that the properties of the cellulose material produced by the process of Hanna et al. would be materially changed if the active oxygen treatment were substituted for the acid hydrolysis reaction of Hanna et al., due to the additional oxidation reaction caused by active oxygen treatment. This would lead a skilled person to conclude that the active oxygen treatment should not be substituted for, or added to, the acid hydrolysis step of Hanna et al. since the effect of the additional oxidation reaction on the properties of the resultant microcrystalline cellulose of Hanna et al. for use to make tablets (see e.g. col. 6, lines 15-22 of Hanna et al.), would be unknown and unpredictable in view of the disclosure of Hanna et al.

The Examiner attempts to dismiss this argument by stating that, "The rejection is not based on the method of Hanna et al.; rather, it is based on the combined references as discussed above." The relevance of this statement is not understood since, to make a combination of references in support of the rejection, one reference, e.g. Hanna et al., must be used as a starting point for the combination and the Examiner must then demonstrate that the skilled person would have a motivation to combine the references. In this case, the Examiner has alleged that it would be obvious to employ an active oxygen compound in the method of Hanna et al. in order to eliminate the subsequent bleaching step of Hanna et al. in order to arrive at the present invention. The applicant has shown with evidence, however, that implementation of this step in Hanna et al. will produce additional, unknown oxidation products and submits that a skilled person

desiring to make tablets (which are subject to FDA approval) would avoid implementation of steps that would produce unknown oxidation products, especially when the process of Hanna et al. is satisfactory for the production of tablets without making the proposed change.

With respect to Trusovs et al., this document is concerned with avoiding the use of an acid hydrolysis method. See e.g. col. 1, lines 34-38 and col. 2, lines 10-15 of Trusovs et al. A skilled person would not combine Trusovs et al. with either Hanna et al. or Schaible et al. since both employ acid hydrolysis methods which Trusovs et al. is trying to avoid.

In addition, another object of Trusovs et al. is to provide a method for producing MCC which does not involve high temperature or high pressure applications (See col. 2, lines 22-24 and 38-41 of Trusovs et al.). Thus, a skilled person would not combine Trusovs et al. with Hanna et al. or Schaible et al. since Hanna et al. and Schaible et al. both employ high temperatures and Hanna et al. also employs high pressures in the extruder. Thus, Trusovs et al. should be withdrawn from the rejection since it has for its primary purpose to avoid the use of the types of methods that are described in both of the other cited references to Hanna et al. and Schaible et al. and thus a skilled person would certainly not consult Trusovs et al. for the purpose of modifying the acid hydrolysis methods of either Hanna et al. or Schaible et al.

With respect to product claims 22-24 and 26, the skilled person would expect that these products would be substantially different from the products produced by the method of Hanna et al. because the chemical reactions that occur when peroxide is present during the acid hydrolysis step are different than acid hydrolysis reactions, as discussed above.

Accordingly, for at least these reasons, withdrawal of the rejection of claims 1-7, 20, 22-24, 26 and 28 under 35 U.S.C. §103(a) is requested.

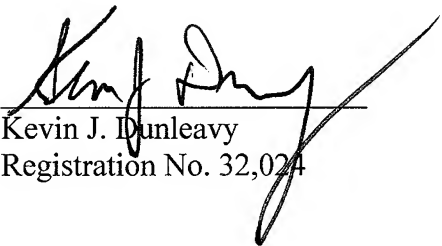
Claims 18-21, 25-27 and 29-31 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent no. 6,228,232 B1 (Hanna et al.), in view of WO 01/02441 A1 (Schaible et al.), U.S. Patent no. 6,392,034 B1 (Trusovs et al.) and U.S. Patent no. 5,192,569 (McGinley et al.). This rejection is respectfully traversed and reconsideration is requested for the reasons which follow.

McGinley et al. does not cure the defects of the primary references discussed above. Accordingly the same reasons as applied to the rejection of claims 1-7, 20, 22-24, 26 and 28 under 35 U.S.C. §103(a), also apply to the rejection of claims 18-21, 25-27 and 29-31 since each of these claims depends from claim 1. Withdrawal of the rejection is requested.

Favorable consideration and issuance of a Notice of Allowance is requested.

Respectfully submitted,

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